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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/570,829	03/06/2006	Yoshitaka Yoshino	SONYJP 3.3-447	8759

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LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK
600 SOUTH AVENUE WEST
WESTFIELD, NJ 07090

EXAMINER

HANNON, CHRISTIAN A

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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09/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/570,829	Applicant(s) YOSHINO, YOSHITAKA	
	Examiner Christian A. Hannon	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/6/2006, 4/23/2007, 12/29/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 4/23/2007, 12/29/2006, 3/6/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statements.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 & 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over lida et al (US 6,821,158), hereinafter lida.
5. Regarding claim 1, lida teaches an earphone antenna connecting device for connecting an earphone antenna including high and low frequency signal transmission lines to a portable radio set via a pin-plug connector, the device comprising a conversion board formed from a double sided printed circuit board having formed therein pin insertion holes in which pins of the pin plug connector are to be inserted (Page 2, Lines 35-44; lida), the conversion board having formed on one side thereof a connecting pattern having connecting lands formed around the pin insertion holes and

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connecting lands to which the transmission lines are to be connected and on the other side a ground pattern not including a portion of the conversion board where there are formed the pin insertion holes for the pins to which the antenna signal lines are to be connected, and which is formed to surround at least three sides of each of the pin insertion holes in which signal pins through which the low frequency signal is to pass are to be inserted (Page 2, Lines 44-63; lida). It is noted by the examiner that lida teaches the FPC to have two sides and is therefore read as double sided. However lida fails to teach that low frequency signals are to be passed through the connector. However it would be obvious to one of ordinary skill in the art to realize that low frequency signals may be passed through an electrical connection, therefore since lida does teach that the connector is for passing electrical signals it would be obvious to pass low frequency signals through lida in order to establish a function connection.

Regarding claim 3, lida teaches a portable radio set to which an earphone antenna including a high and low frequency signal transmission lines to a portable radio set via an earphone antenna connecting device using a pin plug connector, the earphone antenna connecting device comprising a conversion board formed from a double sided printed circuit board having formed therein pin insertion holes in which pins of the pin plug connector are to be inserted (Page 2, Lines 35-44; lida), the conversion board having formed on one side thereof a connecting pattern having connecting lands formed around the pin insertion holes and connecting lands to which the transmission lines are to be connected and on the other side a ground pattern not including a portion of the conversion board where there are formed the pin insertion

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holes for the pins to which the antenna signal lines are to be connected, and which is formed to surround at least three sides of each of the pin insertion holes in which signal points through which the low frequency signal is to pass are to be inserted (Page 2, Lines 44-63; lida). It is noted by the examiner that lida teaches the FPC to have two sides and is therefore read as double sided. However lida fails to teach that low frequency signals are to be passed through the connector. However it would be obvious to one of ordinary skill in the art to realize that low frequency signals may be passed through an electrical connection, therefore since lida does teach that the connector is for passing electrical signals it would be obvious to pass low frequency signals through lida in order to establish a function connection.

Allowable Subject Matter

6. Claims 2 & 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 2, lida teaches claim 1, but fails to teach wherein there is connected to the portable radio set body via the pin plug connector the earphone antenna which is a sleeve antenna formed from a coaxial wire as high and low frequency signal transmission lines formed from an audio signal wire and antenna signal wire, which are core conductors, and an antenna sound grounding wire as a shielding wire and an earphone cable connected to one end of the coaxial wire via a means for separating the high and low frequency signals from each other.

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Regarding claim 4, lida teaches claim 3, but fails to teach wherein the earphone antenna is a sleeve antenna formed from a coaxial wire as a transmission line for the high and low frequency signals, formed from an audio and antenna signal wires as core conductors and an antenna sound grounding wire as a shielding wire and an earphone cable connected to one end of the coaxial wire via a means for separating the high and low frequency signals from each other, the earphone antenna connecting device has the pin plug connector thereof connected to the other end of the coaxial wire.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian A. Hannon whose telephone number is (571) 272-7385. The examiner can normally be reached on Mon. - Fri. 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CH

C. A. Hannon
August 30, 2007


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600